



UCAR

University Corporation for Atmospheric Research
P.O. Box 3000, Boulder, CO 80307-3000, U.S.A.
Telephone: (303) 497-1650 Telex: 989764 FAX: 497-1654

August 3, 1995

Mr. James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

For: Secretary, Federal Communications Commission,
Washington, D.C.

Re: **Release of Notice of Proposed Rule-Making (NPRM) for
915-MHz Radar Wind Profiler Allocation**

Ref: Notice of Inquiry, FCC Docket No. ET 93-59, FCC 93-136
Dated 1 April 1993

Dear Mr. Dunstan:

This letter is provided to the Federal Communications Commission to support the continuation of the rule-making process for a commercial 915-MHz frequency allocation for Wind Profiler Systems.

There is an Existing Government Allocation at 915 MHz.

The 915-MHz Instrumentation, Scientific, and Medical (ISM) band is already utilized by government users of wind profilers. These users include all branches of the Department of Defense as well as many other U.S. government agencies like NOAA and the National Weather Service.

There Are Compelling Physical Principles for Using 915 MHz.

There are compelling reasons for this allocation. The physical principles upon which radar profilers operate are dependent on the scales of turbulence in the atmosphere being matched to the radar wavelength. Years of experience with scientific programs led the National Oceanic and Atmospheric Administration to develop boundary layer radar profilers at 915 MHz, and this technology has subsequently been made available to commercial users and private industry on an experimental basis. Larger radar profilers operating at 449 MHz can never achieve the boundary layer measurements required for many applications.

Member Institutions

University of Alabama in Huntsville
University of Alaska Fairbanks
University at Albany, State University of
New York
University of Arizona
California Institute of Technology
University of California, Davis
University of California, Irvine
University of California, Los Angeles
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Colorado State University
University of Colorado
Cornell University
University of Denver
Drexel University
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Harvard University
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Champaign
Iowa State University
University of Iowa
Johns Hopkins University
University of Maryland at College Park
Massachusetts Institute of Technology
McGill University
University of Miami
University of Michigan
University of Minnesota
University of Missouri
Naval Postgraduate School
University of Nebraska-Lincoln
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University of New Hampshire
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Technology
New York University
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University of Texas at Austin
University of Toronto
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University of Virginia
Washington State University
University of Washington
University of Wisconsin-Madison
University of Wisconsin-Milwaukee
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Recycled Paper

There is a Long History of Cooperation with Other Users.

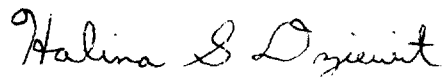
The domestic use of 915-MHz profilers includes over 100 installations with almost no incidents of interference with other services. Non-conflicting siting requirements and the vertically pointed profiler antennas means there is almost no chance of future incidents of interference. Profiler users have always cooperated with other ISM-band users in testing, limiting occupied bandwidth, and controlling antenna sidelobes. Profilers will never be deployed in massive numbers; the United States would probably be adequately served with profiler coverage with less than 1000 systems.

The Application of 915-MHz Profilers is Critical for Issues Involving Safety of Life and Emergency Response.

Users of the 915-MHz technology include many state agencies and regional air pollution districts working to integrate the effects of air toxins and pollution in heavily populated areas. Other users include universities and private industry working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change, and dangerous weather phenomenon. In short, 915-MHz radar profilers will help save lives and protect property for thousands of citizens.

It is for these reasons that we strongly urge the FCC to continue the rule-making process, and to let the wind profiler users peaceably co-exist in the 915-Mhz frequency band. Your consideration is sincerely appreciated.

Best regards,



Halina S. Dziewit
Director, Intellectual Property Management Program

cc: Radian Corporation
2990 Center Green Court, South
Boulder, CO 80301

Mr. Gary Patrick
NTIA
179 Admiral Cochrane Drive
Annapolis, MD 21401

James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

For: Secretary; Federal Communicators Commission Washington D.C.

Subject: **Release of Notice of Proposed Rulemaking (NPRM) for 915 MHz Radar Wind Profiler Allocation**

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There are compelling reasons for this allocation. The physical principles upon which radar profilers operate are dependent on the scales of turbulence in the atmosphere being matched to the radar wavelength. Years of experience with scientific programs led the National Oceanic and Atmospheric Administration to develop boundary layer radar profilers at 915 MHz, and this technology has subsequently been made available to commercial users and private industry on an experimental basis. Larger radar profilers operating at 449 MHz can never achieve the boundary layer measurements required for many applications.

There is a Long History of Cooperation with Other Users.

The domestic use of 915-MHz profilers includes over 100 installations with almost no incidents of interference with other services. Non-conflicting siting requirements and the vertically pointed profiler antennas means there is almost no chance of future incidents of interference. Profiler users have always cooperated with other ISM-band users in testing, limiting occupied bandwidth, and controlling antenna sidelobes. Profilers will never be deployed in massive numbers; the United States would probably be adequately served with profiler coverage with less than 1000 systems.

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Users of the 915-MHz technology include many state agencies and regional air pollution districts working to integrate the effects of air toxics and pollution in heavily populated areas. Other users include universities and private industry working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change, and dangerous weather phenomenon. In short, 915-MHz radar profilers will help save lives and protect property for thousands of citizens.

It is for these reasons that we strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users peaceably co-exist in the 915-MHz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely,

Floyd F. Hawth
Study Director, National Weather Service Modernization
Committee

c: Radian Corporation
2990 Center Green Court, S.
Boulder, CO 80301

Gary Patrick
NTIA
179 Admiral Cochrane Drive
Annapolis, MD 21401



DEPARTMENT OF THE AIR FORCE
PHILLIPS LABORATORY (AFMC)

8 August 1995

OL-AA PL/GPAB
29 Randolph Road
Hanscom AFB MA 01731-3010

James Dunstan, Secretary; Federal Communications Commission
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

Dear Mr. Dunstan

This letter is provided to the Federal Communications Commission to support the continuation of the rulemaking process for a commercial 915-MHz frequency allocation for Wind Profiler Systems.

There is an Existing Government Allocation at 915 MHz. The 915-MHz Instrumentation, Scientific, and Medical (ISM) band is already utilized by government users of wind profilers. These users include the U.S. Air Force where I work and other branches of the Department of Defense as well as many other U.S. government agencies like NOAA and the National Weather Service.

There are Compelling Physical Principles for Using 915 MHz. There are compelling reasons for this allocation. The physical principles upon which radar profilers operate are dependent on the scales of turbulence in the atmosphere being matched to the radar wavelength. Years of experience with scientific programs at Phillips Lab (USAF) and other R&D organizations led the National Oceanic and Atmospheric Administration to develop boundary layer radar profilers at 915 MHz, and this technology has subsequently been made available to commercial users and private industry on an experimental basis. Larger radar profilers operating at 449 MHz and 50 MHz can never achieve the boundary layer measurements required for many applications.

There is a Long History of Cooperation with Other Users. The domestic use of 915-MHz profilers now includes over 100 installations with almost no incidents of interference with other services. Non-conflicting siting requirements and the vertically pointed profiler antennas means there is almost no chance of future incidents of interference. Profiler users have always cooperated with other ISM-band users in testing, limiting occupied bandwidth, and controlling

antenna sidelobes. Profilers will never be deployed in massive numbers; the United States would probably be adequately served with profiler coverage with less than 1000 systems.

The Application of 915-MHz Profilers is Critical for Issues Involving Safety of Life and Emergency Response. It is my understanding that users of the 915-MHz technology include many state agencies and regional air pollution districts working to integrate the effects of air toxics and pollution in heavily populated areas. Other users include universities and private industry working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change, and dangerous weather phenomenon. In short, 915-MHz radar profilers will help save lives and protect property for thousands of citizens.

It is for these reasons that we strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users peaceably co-exist in the 915-MHz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely



DONALD A. CHISHOLM, Chief
Satellite Analysis and Weather Prediction Branch
Atmospheric Sciences Division

cc:

Radian Corporation
2990 Center Green Court, S.
Boulder, CO 80301

Gary Patrick
NTIA
179 Admiral Cochrane Drive
Annapolis, MD 21401

James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

For: Secretary; Federal Communicators Commission Washington D.C.

Subject: **Release of Notice of Proposed Rulemaking (NPRM) for 915 MHz Radar Wind Profiler Allocation**

Ref: Notice of Inquiry, FCC Docket No. ET 93-59, FCC 93-136 Dated
1 April 1993

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There is an Existing Government Allocation at 915 MHz.

The 915-MHz Instrumentation, Scientific, and Medical (ISM) band is already utilized by government users of wind profilers. These users include all branches of the Department of Defense as well as many other U.S. government agencies like NOAA and the National Weather Service.

There Are Compelling Physical Principles for Using 915 MHz.

There are compelling reasons for this allocation. The physical principles upon which radar profilers operate are dependent on the scales of turbulence in the atmosphere being matched to the radar wavelength. Years of experience with scientific programs led the National Oceanic and Atmospheric Administration to develop boundary layer radar profilers at 915 MHz, and this technology has subsequently been made available to commercial users and private industry on an experimental basis. Larger radar profilers operating at 449 MHz can never achieve the boundary layer measurements required for many applications.

There is a Long History of Cooperation with Other Users.

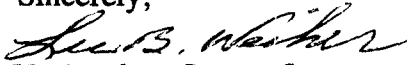
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Users of the 915-MHz technology include many state agencies and regional air pollution districts working to integrate the effects of air toxics and pollution in heavily populated areas. Other users include universities and private industry working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change, and dangerous weather phenomenon. In short, 915-MHz radar profilers will help save lives and protect property for thousands of citizens.

It is for these reasons that we strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users peaceably co-exist in the 915-MHz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely,



53 Weather Recon Sq

Hurricane Hunters

Keesler AFB, Ms.

c: Radian Corporation
2990 Center Green Court, S.
Boulder, CO 80301

Gary Patrick
NTIA
179 Admiral Cochrane Drive
Annapolis, MD 21401

STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY

1035 OUTER PARK DRIVE
SPRINGFIELD, ILLINOIS 62704

Jim Edgar
Governor

217-785-9900
217-782-6133 (TDD)

Thomas W. Ortziger
Director

August 10, 1995

Mr. James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, Virginia 22203-1633

For: Secretary; Federal Commicators Commission Washington D. C.

Subject: **Release of Notice of Proposed Rulemaking (NPRM) for 915 Mhz Radar
Wind Profiler Allocation**

Ref: Notice of Inquiry, FCC Docket No. ET 93-59, FCC 93-136 Dated
1 April 1993

Dear Mr. Dunstan:

This letter is provided to the Federal Communications Commission to support the continuation of the rulemaking process for a commercial 915-Mhz frequency allocation for Wind Profiler Systems.

There is an Existing Government Allocation at 915 Mhz.

The 915-MHz Instrumentation, Scientific, and Medical (ISM) band is already utilized by government users of wind profilers. These users include all branches of the Department of Defense as well as many other U.S. government agencies like NOAA and the National Weather Service.



Recyclable

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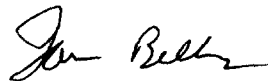
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Mr. James Dunstan
August 10, 1995
Page 3

It is for these reasons that we strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users peaceably co-exist in the 915-MHz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely,



Tom Bellinger
Division of Planning and Analysis

TB:tlk

pc: Radian Corporation
2990 Center Green Court, S.
Boulder, CO 80301

Gary Patrick
NTIA
179 Admiral Cochrane Drive
Annapolis, MD 21401

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH

REMOTE SENSING FACILITY

PO Box 3000, Boulder, Colorado 80307-3000

Phone: 303-497-2061, Telex: 989764, Fax: 303-497-2044

31 July 1995

Mr. James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

For: Secretary, Federal Communications Commission, Washington, DC

Subject: Release of Notice of Proposed Rulemaking (NPRM) for 915-MHz Radar
Wind Profiler Allocation

Ref: Notice of Inquiry, FCC Docket No. ET 93-59, FCC 93-136 dated 1 April
1993

Dear Mr. Dunstan:

I write as an individual researcher to support the continuation of the rulemaking process for a commercial 915-MHz frequency allocation for wind profiler systems. Our research involves the development of a remote wind sensor based on the Doppler shift of laser light backscattered by particles suspended in the atmosphere and moving with it. We have made side-by-side measurements with a 915-MHz profiler to verify the performance of our Doppler lidar (the optical analog of radar), and we intend extended comparative measurements in the future as a way of studying the characteristics of the atmosphere.

The effectiveness of combined measurements with a 915-MHz profile radar and a lidar stems from the different sensing mechanisms involved; the two techniques are indeed complementary. Without the availability of the 915-MHz band for profiling we would lose an important piece of information about the dynamics of the boundary layer. We have been successfully sharing the band with other users, and we expect this cooperation to work as well in the future.

Of course, the reasons for release of the NPRM given by other users are very important. I support the notions of the existing government allocation at 915 MHz, the physical reasons (turbulence scales) for 915 MHz, the history of cooperation, and the need for profiler measurements for the localized forecasting of air motion that is important for safety and health concerns. Others can speak more directly than I can on these issues.

to Dunstan from Schwiesow, 31Jul95, p. 2/2

I appreciate your consideration of research needs for boundary-layer data from 915-MHz profilers based on a commercial frequency allocation.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Ronald L. Schwiesow".

Ronald L. Schwiesow
Research Engineer

cc: Radian Corporation
Gary Patrick



James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

The University of Oklahoma

SCHOOL OF METEOROLOGY

For: Secretary; Federal Communicators Commission Washington D.C.

Subject: **Release of Notice of Proposed Rulemaking (NPRM) for 915 MHz Radar Wind Profiler Allocation**

Ref: Notice of Inquiry, FCC Docket No. ET 93-59, FCC 93-136 Dated
1 April 1993

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There Are Compelling Physical Principles for Using 915 MHz.

There are compelling reasons for this allocation. The physical principles upon which radar profilers operate are dependent on the scales of turbulence in the atmosphere being matched to the radar wavelength. Years of experience with scientific programs led the National Oceanic and Atmospheric Administration to develop boundary layer radar profilers at 915 MHz, and this technology has subsequently been made available to commercial users and private industry on an experimental basis. Larger radar profilers operating at 449 MHz can never achieve the boundary layer measurements required for many applications.

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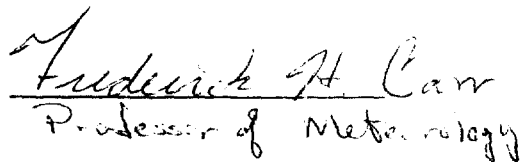
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The Application of 915-MHz Profilers is Critical for Issues Involving Safety of Life and Emergency Response.

Users of the 915-MHz technology include many state agencies and regional air pollution districts working to integrate the effects of air toxics and pollution in heavily populated areas. Other users include universities and private industry working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change, and dangerous weather phenomenon. In short, 915-MHz radar profilers will help save lives and protect property for thousands of citizens.

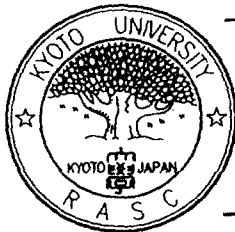
It is for these reasons that we strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users peaceably co-exist in the 915-MHz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely,


Frederick H. Carr
Professor of Meteorology

c: Radian Corporation
2990 Center Green Court, S.
Boulder, CO 80301

Gary Patrick
NTIA
179 Admiral Cochrane Drive
Annapolis, MD 21401



KYOTO UNIVERSITY
RADIO ATMOSPHERIC SCIENCE CENTER
UJI, KYOTO 611, JAPAN

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TELEX 5453665 RASCKU J
FAX +81-774-31-8463
TELEGRAM RASCKU

August 7, 1995

Mr. James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633, USA

For: Secretary; Federal Communications Commission Washington D.C.
Subject: Release of Notice of Proposed Rulemaking (NPRM) for 915 MHz
Radar Wind Profiler Allocation
Ref: Notice of Inquiry, FCC Docket No. ET 93-59, FCC 93-136
Dated: 1 April 1993

Dear Mr. Dunstan:

I am currently a visiting scientist at the Radio Atmospheric Science Center of Kyoto University. My permanent affiliation is with the Department of Electrical Engineering of the University of Nebraska-Lincoln. This letter is provided to the FCC to support the continuation of the rulemaking process for a commercial 915-MHz frequency allocation for Wind Profiler Systems. I conduct research with a 915-MHz system, which has provided significant information about the mechanisms involved in the lower atmosphere. A change in the frequency allocation would make my system inoperable. Modifications would be difficult and quite expensive. Besides these trivial problems, the following are a few items which should be taken into account before any action is taken.

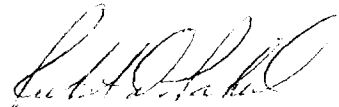
Existing Government Allocation at 915-MHz: The 915-MHz Instrumentation, Scientific, and Medical (ISM) band is already utilized by government users of wind profilers. These users include all branches of the Department of Defense as well as many other US government agencies like NOAA and the National Weather Service. In addition, numerous universities and other research institutions use the 915-MHz wind profiling systems.

Physical Needs for the Use of 915-MHz: The physical principles upon which radar profilers operate are dependent on the scales of turbulence in the atmosphere being matched to the radar wavelength. Years of experience led NOAA to develop boundary layer wind profilers at 915-MHz. It is physically impossible for vastly different frequencies to be used for this important work.

Application of 915-MHz Profilers is Critical: Users of 915-MHz technology include many state agencies and regional air pollution districts working to integrate the effects of air toxins and pollution in heavily populated areas. Other users are working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change and dangerous weather phenomenon. These areas show that 915-MHz radar profilers are used to save lives and protect property for thousands of citizens.

It is for these reasons that I strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users co-exist in the 915-MHz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely,



Robert D. Palmer
Assistant Professor

cc: Russell Peterman
Radian Corporation
2990 Center Green Court, S.
Boulder, CO 80301, USA

Gary Patrick
NTIA
179 Admiral Cochrane Drive
Annapolis, MD 21401, USA

8-10-95

James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

For: Secretary; Federal Communicators Commission Washington D.C.

Subject: **Release of Notice of Proposed Rulemaking (NPRM) for 915 MHz Radar Wind Profiler Allocation**

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There is a Long History of Cooperation with Other Users.

The domestic use of 915-MHz profilers includes over 100 installations with almost no incidents of interference with other services. Non-conflicting siting requirements and the vertically pointed profiler antennas means there is almost no chance of future incidents of interference. Profiler users have always cooperated with other ISM-band users in testing, limiting occupied bandwidth, and controlling antenna sidelobes. Profilers will never be deployed in massive numbers; the United States would probably be adequately served with profiler coverage with less than 1000 systems.

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It is for these reasons that we strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users peaceably co-exist in the 915-MHz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely,

Robert Nunes

24580 Silver Cloud Court • Monterey, California 93940
408/647•9411 FAX 408/647•8501

c: Radian Corporation
2990 Center Green Court, S.
Boulder, CO 80301

Gary Patrick
NTIA
179 Admiral Cochrane Drive
Annapolis, MD 21401



ROBERT A. NUNES
Air Quality Planner

MONTEREY BAY

Unified Air Pollution Control District

service Monterey, San Benito, and Santa Cruz counties

→, as well as the California Air Resources Board,
P.S. - We rely heavily upon profiler data
to provide critical information on wind
and temperature conditions aloft for assessing
the transport of air pollution between
upwind and downwind air basins.

Thanks, Robert Nunes



Earth System Science Laboratory

Huntsville, AL 35899
Phone: (205) 922-5800
Fax: (205) 992-5755

August 8, 1995

Mr. James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, Virginia 22203-1633

For: Secretary; Federal Communicators Commission,
Washington, DC

Subject: **Release of Notice of Proposed Rulemaking (NPRM) for 915 MHz
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The domestic use of 915-MHz profilers includes over 100 installations with almost no incidents of interference with other services. Non-conflicting siting requirements and the vertically pointed profiler antennas means there is almost no chance of future incidents of interference. Profiler users have always cooperated with other ISM-band users in testing, limiting occupied bandwidth, and controlling antenna sidelobes. Profilers will never be deployed in massive numbers; the United States would probably be adequately served with profiler coverage with less than 1000 systems.

The Applications of 915-MHz Profilers is Critical for Issues Involving Safety of Life and Emergency Response.

Users of the 915-MHz technology includes many state agencies and regional air pollution districts working to integrate the effects of air toxics and pollution in heavily populated areas. Other users include universities and private industry working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change, and dangerous weather phenomenon. In short, 915-MHz radar profilers will help save lives and protect property for thousands of citizens.

It is for these reasons that we strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users peaceably co-exist in the 915-MHz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard T. McNider", with a stylized flourish at the end.

Richard T. McNider, Ph.D.,
Director, Earth System Science Laboratory

cc: Radian Corp., Boulder, CO
Gary Patrick, NTIA, Annapolis, MD

WLR RESEARCH INC.
166-47 16 Avenue
Whitestone, NY 11357

WLR RESEARCH INC.
166-47 16 Avenue
Whitestone, NY 11357
Tel: 718-261-1111
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July 31, 1995

James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

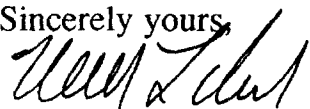
Subject: Release of NPRM for 915 MHz Radar Wind Profiler Application
(Notice of Inquiry, FCC Docket No. ET 93-59, FCC 93-136, 4/1/93)

Dear Mr. Dunstan,

This letter is in support of the rulemaking process for a commercial 915 MHz frequency allocation for Wind Profiler Systems. My company has developed for the FAA a Radar Acoustic Sounding System (RASS) at 915 MHz that detects and measures the strength of (wingtip) wake vortices during takeoff and landing of commercial aircraft at major airports. This sensor operates on principles similar to those used by wind profiler systems.

The new sensor has been tested and validated at JFK International Airport during the past 3 years under FAA funding. Testing at LaGuardia Airport will begin shortly under a program jointly funded by the FAA and the Port Authority of NY/NJ. Wake vortex detection and strength measurement is critical to the safety of all commercial aircraft in the terminal area. This sensor will ultimately be deployed at every major airport in the US and abroad. Antenna height is limited at airports. Operating at 449 MHz would require antennas twice as high as those currently used.

For this reason we strongly urge the FCC to continue the rulemaking process and let wind profiler users co-exist peaceably in the 915 MHz ISM frequency band. Your consideration is very much appreciated.

Sincerely yours,

Dr. William L. Rubin



Jersey Central Power & Light Company
300 Madison Avenue
P.O. Box 1911
Morristown, New Jersey 07962-1911
(201) 455-8200

July 27, 1995

Mr. James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, Virginia 22203-1633

For: Secretary, Federal Communicators Commission Washington, D.C.

Subject: **Release of Notice of Proposed Rulemaking (NPRM) for 915 Mhz Radar Wind Profiler Allocation**

Re: Notice of Inquiry, FCC Docket No. ET 93-59, FCC 930136
Dated 1 April 1993.

Dear Mr. Dunstan:

This letter is provided to the Federal Communications Commission to support the continuation of the rulemaking process for a commercial 915-Mhz frequency allocation for Wind Profiler Systems.

There is an Existing Government Allocation at 915 Mhz.

The 915-Mhz Instrumentation, Scientific, and Medical (ISM) band is already utilized by government users of wind profilers. These users include all branches of the Department of Defense as well as many other U.S. government agencies like NOAA and the National Weather Service.

There Are Compelling Physical Principles for Using 915 Mhz.

There are compelling reasons for this allocation. The physical principles upon which radar profilers operate are dependent on the scales of turbulence in the atmosphere being matched to the radar wavelength. Years of experience with scientific programs led the National Oceanic and Atmosphere Administration to develop boundary layer radar profilers at 915 Mhz, and this technology has subsequently been made available to commercial users and private industry on an experimental basis. Larger radar profilers operating at 449 Mhz can never achieve the boundary layer measurements required for many applications.

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There is Long History of Cooperation with Other Users.

The domestic use of 915-Mhz profilers includes over 100 installations with almost no incidents of interference with other services. Non-conflicting siting requirements and the vertically pointed profiler antennas means there is almost no chance of future incidents of interference. Profiler users have always cooperated with other ISM-band users in testing, limiting occupied bandwidth, and controlling antenna sidelobes. Profilers will never be deployed in massive numbers; the United States would probably be adequately served with profiler coverage with less than 1000 systems.

The Application of 915-Mhz Profilers is Critical for Issues Involving Safety to Life and Emergency Response.

Users of the 915-Mhz technology include many state agencies and regional air pollution districts working to integrate the effects of air toxics and pollution in heavily populated areas. Other users include universities and private industry working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change, and dangerous weather phenomenon. At JCP&L/GPU we use the data to support air quality modeling and regulatory permitting. In short, 915-Mhz radar profilers will help save lives and protect property for thousands of citizens.

It is for these reasons that we strongly urge the FCC to continue the rulemaking process, and to let the wind profiler users peacefully co-exist in the 915-Mhz ISM frequency band. Your consideration is sincerely appreciated.

Sincerely,



Richard Dunk
Sr. Air Quality Scientist

cc: Radian Corporation
2990 Center Green Court, S.
Boulder, CO 80301

Gary Patrick
NTIA
179 Admiral Conchrane Drive
Annapolis, MD 21401



August 7, 1995

James Dunstan
Haley, Bader, and Potts
4350 North Fairfax Drive
Arlington, VA 22203-1633

For: Secretary; Federal Communicators Commission Washington D.C.

Subject: **Release of Notice of Proposed Rulemaking (NPRM) for 915 MHz Radar Wind Profiler Allocation**

Ref: Notice of Inquiry, FCC Docket No. ET 93-59, FCC 93-136 Dated
1 April 1993

Dear Mr. Dunstan:

This letter is provided to the Federal Communications Commission to support the continuation of the rulemaking process for a commercial 915-MHz frequency allocation for Wind Profiler Systems.

There is an Existing Government Allocation at 915 MHz.

There are compelling reasons for this allocation. The physical principles upon which radar profilers operate are dependent of the scales of turbulence in the atmosphere being matched to the radar wavelength. Years of experience with scientific programs led the National Oceanic and Atmospheric Administration to develop boundary layer radar profilers at 915 MHz, and this technology has subsequently been made available to commercial users and private industry on an experimental basis. Larger radar profilers operating at 449 MHz can never achieve the boundary layer (the lowest 3,000 feet of the atmosphere) measurements required for many applications.

The Application of 915-MHz Profilers is Critical for Issues Involving Safety of Life and Emergency Response.

Users of the 915-MHz technology include many state agencies and regional air pollution districts working to integrate the effects of air toxins and pollution in heavily populated areas. Other users include universities and private industry working to protect citizens from chemical spills, nuclear releases, wind shear at airports, global climate change, and dangerous weather phenomenon. In short, 915-MHz radar profilers will help save lives and protect property for thousands of citizens.

"...when decisions depend on weather"